DOCUMENT RESUME

ED 312 326 UD 026 981

TITLE	Public School Academy Achievement Test Results.
INSTITUTION	Minneapolis Public Schools, MN. Program Evaluation Services.
SPONS AGENCY	General Mills, Inc., Minneapolis, Minn.
PUB DATE	14 Jun 89
NOTE	16p.; For related document, see UD 026 980.
PUB TYPE	Reports - Research/Technical (143)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	*Academic Achievement; Achievement Tests; Elementary Education; Mathematics Tests; *Nontraditional Education; *Outcomes of Education; Reading Improvement; *Reading Tests; *Scores; Standardized Tests; Statistical Analysis; Urban Schools
IDENTIFIERS	*California Achievement Tests; *Minnesota (Minneapolis)

ABSTRACT

A preliminary report on the California Achievement Tests (CAT) performance of students attending the Public School Academy (PSA) in Minneapolis (Minnesota) in 1988-89 is presented. The performance of students in grades 2-4 on the CAT reading comprehension and mathematics computation subtests and the performance of students in grade 4 on the mathematics concepts and applications subtest are summarized. Only students with both pretest and posttest scores were included in the analysis. The following findings are reported: (1) students scored at a wide range of levels on the fall 1988 reading comprehension test; (2) overall, students showed improvement in reading comprehension, with third graders showing the most improvement; (3) 61 percent of the students gained at least 10 grade-equivalent months in reading comprehension, with 57 percent of the third graders gaining at least 30 grade-equivalent months; (4) the amount of change in reading comprehension levels between fall and spring was not always directly related to the student's initial achievement levels; (5) all students showed improvement in math computation; (6) 76 percent of the students gained 10 grade-equivalent months in math computation; (7) fourth graders made an average gain of 10 grade-equivalent months in math concepts; and (8) the PSA did not achieve its goal that 75 percent of its students would gain at least 14 grade-equivalent months on the CAT. Statistical data are included on eight tables. (FMW)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

8.8.89

MINNEAPOLIS PUBLIC SCHOOLS
PDE: Program Evaluation Services

ED312326

June 14, 1989

MEMORANDUM

TO: JoAnn Heryla, PSA Principal
David Nasby, General Mills
Larry Sawyer, General Mills

FROM: Lary Johnson

SUBJECT: Public School Academy Achievement Test Results

Attached at your request is some preliminary information about the performance of 1988-89 Public School Academy (PSA) students on the nationally-normed California Achievement Tests (CAT). The information has been labeled "preliminary" because it is anticipated that additional school performance data, as well as a further analysis of the enclosed information, will be included in a final more comprehensive evaluation report.

This brief document summarizes the fall 1988 and spring 1989 performance of PSA students in grades 2-4 on the CAT reading comprehension and math computation subtests, and the math concepts and applications subtest at grade 4. The fall tests were given as part of the district-wide testing program. Only students with both a pretest and posttest were included in the analysis.

The following additional information about school performance will be included in the final report:

- Additional spring 1989 posttest-only CAT subtest results at grades 1 and 2; fall 1988 pretest data is not available.
- Spring 1989 district benchmark test information at grades K-4, including comparisons with the students' benchmark performance the previous year.
- A further analysis of pretest-to-posttest "gains" in relation to other student characteristics; such as, special education status, performance in the classroom curriculum, and students' academic-related behavior as rated by their PSA teachers.

The final evaluation report also will include a description of classroom activities, and staff opinions and parent opinions regarding key aspects of the PSA program.

CD 026 981

BEST COPY AVAILABLE

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☒ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
David Nasby
General Mills Inc.
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

In my opinion, the enclosed CAT information should be viewed as a "first look" at one aspect of the Public School Academy. It is only one measure of some of the important outcomes of the program. Grade equivalent scores, in particular, should be interpreted cautiously. For example, if a student scores two years above grade level on a particular test, it does not mean that the student has mastered (or is able to function with) material at that grade level. Also, with some tests, a change in one item correct at certain points on the scale can have a great impact on the grade-equivalent score and, in some cases, on the percentile ranking.

Reading Comprehension

PSA students in grades 2-4 scored at a wide range of levels on the CAT reading comprehension test in the fall of 1988. Fourth grade students were generally distributed similarly to the national norm group, while grade 2-3 students were clustered more on the lower half of the national distribution (Table 1).

Overall, PSA students in grades 2-4 showed some improvement from fall 1988 to spring 1989 on the CAT reading comprehension test. Third graders showed the most improvement; their mean percentile, compared to the test publisher's national norm group, increased from 27 in the fall to 52 in the spring (Table 1). Sixty-nine percent of the third graders gained more than ten percentile points from fall to spring. Half of the second graders and about one-third of the fourth graders gained at least ten points.

Overall, 61% of the grade 2-4 students gained at least ten grade equivalent months (one grade-equivalent year) between the fall and spring. At third grade, 57% of the students gained at least three grade-equivalent years, obviously indicating substantial improvement.

Table 3 shows that the amount of change from fall to spring was not always directly related to the students' initial level of achievement. Although nine of ten students who were two or more years above grade level at the beginning of the year gained 14 or more months, many students at other initial achievement levels also made similar gains.

Math Computation

Math computation as measured by the CAT improved at all grade levels (Tables 4-6). The percentage of students in the lowest forty percent on the national distribution decreased by 34%, 35%, and 29% at grades 2,3, and 4, respectively.

Overall, 76% of the students gained at least one grade-equivalent year from fall 1988 to spring 1989. Again, substantial gains were made by some students at all initial levels of achievement.

Math Concepts

Fourth grade students generally maintained their same relative position on the national norm distribution from fall to spring. That is, as a group, the "average" gain was about one year.

Fourteen Month Goal

A stated goal for the Public School Academy was that 75% of the students would gain at least 14 grade-equivalent months from fall 1988 to spring 1989 on the California Achievement Test.

	Grade 2	Grade 3	Grade 4	Total
Reading Comprehension				
Gain 14 Months	33%	65%	33%	43%
Gain 10 Months	42%	69%	44%	51%
Math Computation				
Gain 14 Months	51%	74%	55%	60%
Gain 10 Months	68%	83%	77%	76%
Math Concepts				
Gain 14 Months	-	-	37%	-
Gain 10 Months	-	-	56	-

Table 1

CAT Reading Comprehension Percentiles for PSA Students in Grades 2-4

National Test Publisher Percentiles	Second Grade (N=22)				Third Grade (N=23)				Fourth Grade (N=27)				Total (N=72)			
	Fall 88		Spring 89		Fall 88		Spring 89		Fall 88		Spring 89		Fall 88		Spring 89	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
81-100 %ile	3	14%	4	18%	3	13%	9	39%	5	19%	6	22%	11	15%	19	26%
61-80 %ile	1	5	4	18	2	9	4	17	6	22	5	19	9	13	13	18
41-60 %ile	2	9	3	14	4	17	5	22	3	11	4	15	9	13	12	17
21-40 %ile	9	41	7	32	4	17	2	9	4	15	7	26	17	24	16	22
1-20 %ile	7	32	4	18	10	44	3	13	9	33	5	19	26	36	12	17
Mean[a]	20.0		22.1		21.0		29.9		31.9		38.4		-		-	
%ile of Mean	26		35		27		52		41		41		-		-	
%ile Points Change	N	%			N	%			N	%			N	%		
21+ Gain	8	36%			12	52%			6	22%			26	36%		
11-20 Gain	3	14			4	17			4	15			11	15		
5-10 Gain	3	14			4	17			5	19			12	17		
-4 to +4	5	23			2	9			4	15			11	15		
5-10 Loss	1	5			0	0			2	7			3	4		
11-20 Loss	2	9			1	4			6	22			9	13		

[a] The fall and spring mean scores at second grade are based on different levels of the California Achievement Test.

Table 2

CAT Reading Comprehension Grade Equivalents for PSA Students in Grades 2-4

National Test Publisher Grade Equivalents	Second Grade (N=22)				Third Grade (N=23)				Fourth Grade (N=27)				Total (N=72)			
	Fall 88		Spring 89		Fall 88		Spring 89		Fall 88		Spring 89		Fall 88		Spring 89	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Months Above or Below Grade Level																
20+ Mos Above	3	14%	4	18%	3	13%	11	48%	4	15%	6	22%	10	14%	21	29%
10-19 Above	0	0	0	0	2	9	3	13	5	18	5	19	7	10	8	11
5-9 Above	1	5	3	14	0	0	0	0	4	15	0	0	5	7	3	4
-4 to +4	13	59	9	41	6	26	4	17	1	4	4	15	20	28	17	24
5-9 Below	2	9	3	14	7	30	2	9	0	0	0	0	9	13	5	7
10-19 Below	3	14	3	14	5	22	3	13	9	33	5	19	17	24	11	15
20+ Below	0	0	0	0	0	0	0	0	4	15	7	26	4	6	7	10
Grade Equivalent Months Change	N	%			N	%			N	%			N	%		
30 Mos Gain	1	5%			13	57%			4	15%			18	25%		
20-29 Mos	3	14			1	4			3	11			7	10		
14-19 Mos	3	14			1	4			2	7			6	8		
10-13 Mos	2	9			1	4			3	11			6	8		
5-9 Mos	7	32			5	22			6	22			18	25		
0-4 Mos	4	18			1	4			6	22			11	15		
Loss	2	9			1	4			3	11			6	8		

Table 3

Reading Comprehension Grade Equivalent Gains by Fall 1988 Scores

Fall to Spring Change in Grade Equivalent Months	Months Above or Below Grade Level in Fall 1988						
	20+ Mos Above (N=10)	10-19 Above (N=7)	5-9 Above (N=5)	-4 Mos +4 Mos (N=20)	5-9 Below (N=9)	10-19 Below (N=17)	20+ Below (N=4)
30 Mos Gain	40%	43%	0%	25%	33%	18%	0%
20-29 Mos	20	0	40	0	11	12	0
14-19 Mos	10	0	20	15	0	6	0
10-13 Mos	0	14	0	5	22	6	25
5-9 Mos	0	14	20	35	22	24	75
0-4 Mos	10	29	20	15	0	24	0
Loss	20	0	0	5	11	12	0

Table 4

CAT Math Computation Percentiles for PSA Students in Grades 2-4

National Test Publisher Percentiles	Second Grade (N=23)				Third Grade (N=23)				Fourth Grade (N=27)				Total (N=73)			
	Fall 88		Spring 89		Fall 88		Spring 89		Fall 88		Spring 89		Fall 88		Spring 89	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
81-100 %ile	7	30%	8	35%	6	26%	11	48%	2	7%	8	30%	15	21%	27	37%
61-80 %ile	1	4	6	26	2	9	1	4	4	15	8	30	7	10	15	21
41-60 %ile	3	13	5	22	4	17	8	35	6	22	4	15	13	18	17	23
21-40 %ile	5	22	2	9	1	4	2	9	6	22	5	19	12	16	9	12
1-20 %ile	7	30	1	9	10	44	1	4	9	33	2	7	26	36	5	7
Mean[a]	17.6		21.3		18.4		38.9		20.6		39.6		-		-	
%ile of Mean	33		60		27		66		33		55		-		-	
%ile Points Change	N	%			N	%			N	%			N	%		
21+ Gain	11	48%			10	44%			16	59%			37	51%		
11-20 Gain	1	4			4	17			2	7			7	10		
5-10 Gain	4	17			1	4			4	15			9	12		
-4 to +4	3	13			5	22			5	19			13	18		
5-10 Loss	0	0			0	0			0	0			0	0		
11-20 Loss	2	9			2	9			0	0			4	6		
21+ Loss	2	9			1	4			0	0			3	4		

[a] The fall and spring mean scores at second grade are based on different levels of the California Achievement Test.

Table 5

CAT Math Computation Grade Equivalents for PSA Students in Grades 2-4

National Test Publisher Percentiles	Second Grade (N=23)				Third Grade (N=23)				Fourth Grade (N=27)				Total (N=73)			
	Fall 88		Spring 89		Fall 88		Spring 89		Fall 88		Spring 89		Fall 88		Spring 89	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Months Above or Below Grade Level																
20+ Mos Above	0	0%	8	35%	1	4%	10	44%	0	0%	5	19%	1	1%	23	32%
10-19 Above	7	30	4	17	5	22	1	4	2	7	1	4	14	19	6	8
5-9 Above	1	4	2	9	2	9	1	4	2	7	8	30	5	7	11	15
-4 to +4	9	39	6	26	5	22	9	39	12	44	6	22	26	36	21	29
5-9 Below	4	17	1	4	8	35	2	9	4	15	1	4	16	22	4	6
10-19 Below	2	9	2	9	2	9	0	0	5	19	5	19	9	12	7	10
20+ Below	0	0	0	0	0	0	0	0	2	7	1	4	2	3	1	1
Grade Equivalent Months Change	N	%			N	%			N	%			N	%		
30 Mos Gain	4	17%			8	35%			2	7%			14	19%		
20-29 Mos	4	17			6	26			6	22			16	22		
14-19 Mos	4	17			3	13			7	26			14	19		
10-13 Mos	4	17			2	9			6	22			12	16		
5-9 Mos	3	13			1	4			3	11			7	10		
0-4 Mos	3	13			3	13			2	7			8	11		
Loss	1	4			0	0			1	4			2	3		

Table 6

Math Computation Grade Equivalent Gains by Fall 1988 Scores

Fall to Spring Change in Grade Equivalent Months	Months Above or Below Grade Level in Fall 1988						
	20+ Mos Above (N=1)	10-19 Above (N=14)	5-9 Above (N=5)	-4 Mos +4 Mos (N=26)	5-9 Below (N=16)	10-19 Below (N=9)	20+ Below (N=2)
30 Mos Gain	0%	29%	20%	19%	25%	0%	0%
20-29 Mos	100	21	40	19	19	11	50
14-19 Mos	0	7	0	23	25	22	50
10-13 Mos	0	0	20	19	13	44	0
5-9 Mos	0	7	0	15	6	11	0
0-4 Mos	0	29	20	4	13	0	0
Loss	0	7	0	0	0	11	0

Table 7

CAT Math Concepts Percentiles for PSA Students in Grade 4

National Test Publisher Percentiles	Fourth Grade (N=27) Fall 88 N	%	Spring 89 N	%
81-100 %ile	7	26%	5	19%
61-80 %ile	6	22	10	37
41-60 %ile	5	19	4	15
21-40 %ile	4	14	6	22
1-20 %ile	5	19	2	7
Mean	38.7		44.6	
%ile of Mean	49		53	
%ile Points Change		N	%	
21+ Gain		6	22%	
11-20 Gain		3	11	
5-10 Gain		1	4	
-4 to +4		8	30	
5-10 Loss		1	4	
11-20 Loss		4	15	
21+ Loss		4	15	

Table 8

CAT Math Concepts Grade Equivalents for PSA Students in Grade 4

National Test Publisher Grade Equivalents	Fourth Grade (N=27)			
	Fall 88		Spring 89	
	N	%	N	%
Months Above or Below Grade Level				
20+ Mos Above	7	26%	10	37%
10-19 Above	3	11	4	15
5-9 Above	4	15	2	7
-4 to +4	6	22	3	11
5-9 Below	2	7	1	4
10-19 Below	5	19	5	19
20+ Below	0	0	2	7

Grade Equivalent Months Change	N	%
30 Mos Gain	3	11%
20-29 Mos	3	11
14-19 Mos	4	15
10-13 Mos	5	19
5-9 Mos	0	0
0-4 Mos	5	19
Loss	7	26